UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,176	01/29/2001	James A. Proctor JR.	TAN-2-1508.01.US	1093

24374 7590 08/10/2011

VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER	
BURD, KEVIN MICHAEL	

ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
08/10/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eoffice@volpe-koenig.com

Office Action Summary	Application No.	Applicant(s)
	09/772,176	PROCTOR, JAMES A.
	Examiner	Art Unit
	Kevin M. Burd	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-14,16,17,19,21,22,25-36,39 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-14,16,17,19,21,22,25-36,39 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This office action, in response to the request for continued examination (RCE) and the amendment filed 6/29/2011, is a non-final office action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/29/2011 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 2, 5-14, 16, 17, 19, 21, 22, 25-36, 39 and 42 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 8-14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar et al (US ,862,457) in view of Yamashita (US 6,256,500).

Regarding claims 1 and 2, Sarkar discloses a method for adaptively controlling the power levels of transmission from a remote station by determining the velocity of the remote station (abstract). The velocity can be determined by the remote station through various methods (abstract). The velocity of the remote station is determined (figure 4, block 401 and claim 9). By determining the velocity of the remote station, the instantaneous motion of the remote station is detected. Based on the velocity estimate, a power level will be selected and adjusted (figure 4 and column 7, lines 49-61). In addition, claim 9 of the reference recites "a method for adaptively controlling transmission power levels…".

Sarkar does not disclose the velocity is based on a measurement of a metric of a modulated signal attribute comprised of at least one of amplitude of the wireless signal, frequency of the wireless signal or phase of the signal. However, there are numerous methods of determining the velocity or speed of a mobile unit. Yamashita discloses one of those methods. Yamashita detects the moving speed of the mobile station according to the fading state of the received signal (column 3, lines 50-65). The mobile station receives a control channel from the relevant radio base station, detects the fading state thereof and determines that the mobile station is moving at a high speed when the fading rate is high (column 4, lines 24-32). The fading rate is determined by measuring the field intensity (RSSI) of the received channel and detecting fluctuation levels per predetermined time in a multipath transmission environment (column 5, lines 60-64 and

column 6, lines 13-18). This field intensity of the received signal corresponds to the amplitude of the wireless signal. Yamashita provides an accurate method of calculating a mobile station's speed. It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the simple substitution of the speed determination means of Yamashita for the speed determining means of Sarkar since the speed determining means will operate in substantially the same manner and the combination will yield predictable results. In addition, Yamashita discloses, through the use of the speed determining means, the number of handoffs can be decreased and the available channels can be effectively used (column 8, lines 28-33).

Regarding claims 8-13, the combination of Sarkar and Yamashita discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. Calculating the metric based on a frequency error signal or a phase error signal as recited in these dependent claims are optional limitations since different modulated signal attributes are met by the reference.

Regarding claim 14, Yamashita discloses the speed detection includes comparing the RSSI to a threshold (column 5, line 51 to column 6, line 13).

Regarding claims 16 and 17, the combination of Sarkar and Yamashita discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. Selecting the parameter adjustment of an antenna mode as recited in these dependent claims are optional limitations since different parameter adjustments are met by the reference.

5. Claims 1, 2, 8-14, 16, 17, 19, 21, 22, 28-36, 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida (US 6,618,596) in view of Yamashita (US 6,256,500).

Regarding claims 1, 2, 21, 22 and 42, Uchida discloses a mobile communication terminal that measures a moving speed of the mobile and changes a data transfer rate in accordance with the moving speed of the mobile (claim 1). The moving speed of the mobile is measured and stored (column 4, lines 41-56). The current moving speed is input to the moving speed maximum data transfer rate correspondence table as shown in figure 2. A lower one of the desired data transfer rate and maximum data transfer rate is selected (column 5, lines 3-10) and the selected transfer rate is input to an origination request message in the signal format shown in figure 3 (column 5, lines 11-15). The base station receives the origination request message supplied from the mobile terminal and communicates with the mobile terminal at the data transfer rate written in the data transfer rate designation field (column 5, lines 20-23).

Uchida does not disclose the moving speed is based on a measurement of a metric of a modulated signal attribute comprised of at least one of amplitude of the wireless signal, frequency of the wireless signal or phase of the wireless signal. However, there are numerous methods of determining the speed of a mobile unit. Yamashita discloses one of those methods. Yamashita detects the moving speed of the mobile station according to the fading state of the received signal (column 3, lines 50-65). The mobile station receives a control channel from the relevant radio base station, detects the fading state thereof and determines that the mobile station is moving at a

high speed when the fading rate is high (column 4, lines 24-32). The fading rate is determined by measuring the field intensity (RSSI) of the received channel and detecting fluctuation levels per predetermined time in a multipath transmission environment (column 5, lines 60-64 and column 6, lines 13-18). This field intensity of the received signal corresponds to the amplitude of the wireless signal. Yamashita provides an accurate method of calculating a mobile station's speed. It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the simple substitution of the speed determination means of Yamashita for the speed determining means of Uchida since the speed determining means will operate in substantially the same manner and the combination will yield predictable results. In addition, Yamashita discloses, through the use of the speed determining means, the number of handoffs can be decreased and the available channels can be effectively used (column 8, lines 28-33).

Regarding claims 8-13 and 28-33, the combination of Uchida and Yamashita discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. Calculating the metric based on a frequency error signal or a phase error signal as recited in these dependent claims are optional limitations since different modulated signal attributes are met by the reference.

Regarding claims 14 and 34, Yamashita discloses the speed detection includes comparing the RSSI to a threshold (column 5, line 51 to column 6, line 13).

Regarding claims 16, 17, 35 and 36, the combination of Uchida and Yamashita discloses the method stated above. MPEP 2111.04 discloses claim scope is not limited by steps that suggests or makes optional but does not require steps to be performed. Selecting the parameter adjustment of an antenna mode as recited in these dependent claims are optional limitations since different parameter adjustments are met by the reference.

Regarding claims 19 and 39, by lowering the data transfer rate, the number of symbols transmitter will be reduced.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar et al (US ,862,457) in view of Yamashita (US 6,256,500) further in view of Watanabe (US 2001/0041584).

Regarding claims 5-7, the combination of Sarkar and Yamashita discloses the method and apparatus stated above. The combination does not disclose an automatic gain control loop is found in the receiver. Watanabe discloses a CDMA receiver that includes the AGC amplifier 37A in figure 1. The AGC amplifier is provided for amplifying the received signal to a desired signal level, in which its gain may automatically be controlled to optimum so that the received power may become as minimal as necessary depending on the distance from the base station (paragraph 0066). Therefore, the receiver will increase the received signal level as the distance between the receiver and the base station increases so the signal can be received and processed correctly. This variable gain control will further minimize errors in the received signal. For these

reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the AGC amplifier of Watanabe into the receiver and method of the combination of Sarkar and Yamashita.

7. Claims 5-7 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida (US 6,618,596) in view of Yamashita (US 6,256,500) further in view of Watanabe (US 2001/0041584).

Regarding claims 5-7 and 25-27, the combination of Uchida and Yamashita discloses the method and apparatus stated above. The combination does not disclose an automatic gain control loop is found in the receiver. Watanabe discloses a CDMA receiver that includes the AGC amplifier 37A in figure 1. The AGC amplifier is provided for amplifying the received signal to a desired signal level, in which its gain may automatically be controlled to optimum so that the received power may become as minimal as necessary depending on the distance from the base station (paragraph 0066). Therefore, the receiver will increase the received signal level as the distance between the receiver and the base station increases so the signal can be received and processed correctly. This variable gain control will further minimize errors in the received signal. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the AGC amplifier of Watanabe into the receiver and method of the combination of Uchida and Yamashita.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571)272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
8/2/2011